

MICROCHANNEL FORMATION FOR FUSES, INTERCONNECTS, CAPACITORS, AND INDUCTORS

ABSTRACT OF THE DISCLOSURE

5 The present invention provides a method for forming interconnect lines and
conductors and passive devices in the fabrication of an integrated circuit. A gap is
created in the patterning of a first layer. The gap is filled by a dielectric material so
that an encapsulated conduit is formed in the gap. The encapsulated conduit is filled
with a conductor by chemical vapor deposition processes or other deposition
10 processes, the filling facilitated by forming via holes to intersect the conduit, and then
filling the via holes. The conductor filled conduit can be used as a resistor, fuse,
inductor, or capacitor.